

WHAT IS CLAIMED IS:

1. A dual band linear antenna array, comprising four hard linear conductors to form a radiator, wherein the conductors are equidistantly rooted at four corners and parallel to each other, wherein three of the
5 conductors have a first length of one quarter wavelength of a first electric wave to be transmitted and received, and one of the conductor has a second length of one quarter wavelength of a second electric wave to be transmitted and received, the first length is shorter than the second length, and the first electric wave has a frequency higher than that of the second electric wave.
- 10 2. The antenna array of Claim 1, wherein the roots of the conductors are serially connected to a signal feed terminal, and the conductors are connected to a copper tube via a coaxial cable external conductor.
3. The antenna array of Claim 1, wherein the conductors include
15 non-insulated bare wires.
4. The antenna array of Claim 1, wherein each of the conductors has a rectangular cross section.
5. The antenna array of Claim 1, wherein the roots of the conductors inserted in a positioning board made of insulation material.
- 20 6. The antenna array of Claim 1, wherein the conductors include magnet wires.
7. The antenna array of Claim 1, wherein each of the conductors has a circular cross section.
8. A dual band linear antenna array, comprising three hard linear
25 conductors to form a radiator, wherein the conductors are equidistantly rooted at three corners and parallel to each other, wherein two of the

conductors have a first length of one quarter wavelength of a first electric wave to be transmitted and received, and one of the conductor has a second length of one quarter wavelength of a second electric wave to be transmitted and received, the first length is shorter than the second length, and the first
5 electric wave has a frequency higher than that of the second electric wave.